




Industrial and organisational psychology Master's coursework and internship as enabler of employability

**Authors:**

Rudolf M. Oosthuizen¹ 
Annelize van Niekerk¹ 
Melinde Coetzee¹ 

Affiliation:

¹Department of Industrial and Organisational Psychology, College of Economic and Management Sciences, University of South Africa, Pretoria, South Africa

Research Project Registration:

Project Number: Ch-NF12

Corresponding author:

Rudolf Oosthuizen,
oosthrm@unisa.ac.za

Dates:

Received: 22 Feb. 2023
Accepted: 07 Sept. 2023
Published: 07 Dec. 2023

How to cite this article:

Oosthuizen, R.M., Van Niekerk, A., & Coetzee, M. (2023). Industrial and organisational psychology Master's coursework and internship as enabler of employability. *SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur*, 21(0), a2262. <https://doi.org/10.4102/sajhrm.v21i0.2262>

Copyright:

© 2023. The Authors.
Licensee: AOSIS. This work is licensed under the Creative Commons Attribution License.

Read online:

Scan this QR code with your smart phone or mobile device to read online.

Orientation: The general goal of the professional industrial and organisational psychology (IOP) master's coursework and internship programmes is to enable the qualifying student to contribute to organisational strategic and operational human resource practices and people behavioural dynamics, assessment, and intervention design.

Research purpose: The study explored the perceived effectiveness of the professional IOP master's coursework and internship programmes in qualifying intern psychologists as employable industrial and organisational psychologists (IOPs).

Motivation for the study: Internships are a practical way for intern psychologists to operationalise their professional purpose, acquire key occupation-related skills and practise their professional capability in real-world work settings.

Research approach/design and method: The sample involved South African intern psychologists specialising in IOP ($n = 17$). Qualitative research methods with thematic data analysis were employed.

Main findings: Guided by self-determination theory, the findings suggested that the IOP master's coursework and internship programmes promote holistic development and embed confidence in practical and theoretical competence on both a personal and a professional level. Intrinsic and autonomous motivation regarding the IOP's role and identity are also crystallised while the importance of continuous personal and professional growth, as well as a good support network, are acknowledged.

Practical/managerial implications: Understanding the intern IOPs experience and required competencies for employment may help to improve the design and development of the professional IOP master's coursework and internship programmes.

Contribution/value-add: The study especially emphasised the need to enhance the effectiveness and support offered within the professional IOP master's coursework and internship programmes by incorporating the principles of self-determination theory.

Keywords: industrial and organisational psychologist; intern psychologist; internship programme; master's professional coursework degree; employability; applied competence; self-determination theory.

Introduction

Orientation

In South Africa, the Health Professions Council of South Africa (HPCSA) has an extensive association with the profession of industrial and organisational psychology (IOP). In accordance with section 16 of the *Health Professions Act 56 of 1974*, the IOP profession is affiliated with the Professional Board for Psychology (Department of Health, 2011). It strives to ensure that the Professional Body's standards of education and training for the registration of IOPs are adhered to and that the interests of the student and public are protected through academic departments at universities in terms of their programme qualification mix (PQM), curriculum design and delivery, as well as their standard of teaching, learning, and assessment practices (Coetzee & Oosthuizen, 2019).

By generating, disseminating, and applying discipline-specific and African knowledge at individual, group, and organisational levels, the vision is to develop employable, competent, and

ethical IOPs to serve humanity (Newman, 2022). To transform the IOP PQM and curriculum, both the profession and academic departments should play an active role. Teaching, learning and assessment practices can be improved continually by applying PQM and curriculum transformation (Goss, 2022). The curriculum and PQM must be reviewed in accordance with the changing requirements of the Fourth Industrial Revolution (4IR) and with the new competencies required by the HPCSA for the training and education of IOP students (Coetzee & Oosthuizen, 2019).

In the digital age, IOPs can act as ethical and pioneering agents by interpreting psychological responses to artificial intelligence (AI) 'colleagues' and creating interventions to assist employees in adapting to the change (Castelo-Branco et al., 2022). For organisations to guarantee optimal results, it is essential that IOPs be included in their information science departments to use their skills in psychological theory, techniques, planning and executive-level management (Alexander, 2022). Furthermore, the curriculum must be relevant and stimulating for adult learners in both Afrocentric and universal global contexts, and it must increase the employability of IOP graduates, as well as meet the needs and requirements of students, regulatory bodies, businesses, stakeholders, and professional fraternities (Coetzee & Oosthuizen, 2019). However, research in the South African context on master's students' perceptions of the extent to which a professional coursework degree and internship programme helped them gain the skills and experience they need to function successfully as a competent and employable IOP is sparse.

Research purpose and objectives

The aim of the study was to explore the perceived effectiveness of the professional IOP master's coursework degree and internship programme in qualifying intern psychologists as employable IOPs. The present research builds on previous research performed by Coetzee et al. (2022), which explored IOP intern students' views on their professional purpose, specific skills gained from the internship, and confidence about setting up an independent practice. The present study focussed on eliciting deeper, unexplored insight regarding the perceived effectiveness of the coursework and internship programme curriculum in facilitating employability of the IOP intern.

Literature review

Industrial and organisational psychology master's professional coursework degree

The professional IOP master's coursework degree (240 credits) is offered at a Comprehensive Open Distance and e-Learning institution in South Africa. The degree is taught by 18 academics and 25 students (working adults) are selected each year. The curriculum of the professional IOP master's coursework degree is informed by the HPCSA Scope of Practice for Psychologists (cat. Industrial), the

HPCSA Minimum Standards for the Training of Industrial Psychology (HPCSA, 2019b), the HPCSA Guidelines for the Teaching of Psychometrics at Higher Institutions of Learning, and the guidelines for internship training (HPCSA Form 160 and Form 218). The curriculum of the professional IOP coursework and internship programmes focus on producing employable IOP graduates who competently and ethically provide professional, discipline-specific human behaviour-related psychological services to relevant stakeholders in the multiculturally diverse South African work space via empirical-based knowledge generation, dissemination and application at individual, group, and organisational levels (Coetzee & Oosthuizen, 2019).

The educational and training processes in IOP play a vital role in the development of professionally qualified IOPs, especially in Southern Africa (Padmanabhanunni et al., 2022). The aim of the professional IOP master's coursework degree is for the qualifying student to be competent and ethical in strategic and operational human resources practice, people (individuals, groups, organisations) behavioural dynamics, assessment, and intervention design in organisations, with due credit given to the needs of a generational and culturally diverse neoliberal information society (Sakka et al., 2022). The curriculum is designed to comply with the HPCSA scope of practice for industrial psychologists and the HPCSA Minimum Standards for Training in Industrial Psychology (HPCSA, 2019b). This curriculum focusses on the development and application of IOP domain area competencies related to the diagnosis, design, intervention, and assessment of tangible and observable human behaviour at individual, group, and organisational levels (Coetzee & Oosthuizen, 2019). By incorporating relevant and appropriate universal and Afrocentric paradigms, theories, models, constructs, and principles of psychology with work-related issues, the module outcomes aim to enhance the understanding, modification and enhancement of individual, group and organisational behaviour, well-being, and effectiveness (Cross & Carbery, 2022).

This qualification contributes to the conceptualisation, design, and implementation of methods of inquiry, including the use of specialised knowledge, skills, and technologies relevant to the practice of IOP, to address complex problem-solving issues related to human behaviour in the global and African contexts (Coetzee & Oosthuizen, 2019). In South Africa and Africa, the solutions, insights, and new knowledge generated from advanced scholarship and research may benefit quality of life, productivity, and human development in the workplace (Box-Steffensmeier et al., 2022; Sumarsi & Rizal, 2022). In addition to preparing students for advanced and professional employment, the qualification provides access to higher education qualifications such as doctoral degrees in IOP.

Internship programme

Providing students with relevant work experience through internships has long been known to increase their marketability, in other words the quality of being attractive to employers,

and employability which is related to work and the ability to be employed, as well as their motivation and confidence in pursuing a career that they value (Ali & Muhammed, 2018; Anjum, 2020; Gault et al., 2010; Hurst et al., 2014; Rothmann & Sisman, 2016; Vélez & Giner, 2015). To achieve work-ready capabilities, professional bodies (such as the HPCSA) collaborate with industry and higher education institutions to identify work-ready skills needed in a vocational occupation (Bowles et al., 2020). A supervised internship programme allows a master's level student in IOP to enhance career-related knowledge and skills through practical experience. These competencies relate to the ability to discern, design, assess, and respond to human behaviour at the individual, group, and organisational levels in the workplace (HPCSA, 2019a).

According to the South African Professional Board for Psychology, an 'internship' is defined as a full-time practical training period of at least 12 months in IOP. Internships are intended to develop, apply, and refine intern psychologists' attitudes, and competencies to facilitate their independent functioning as psychologists in a variety of settings. Potential IOPs gain valuable experience through an internship in an actual work setting. Ideally, intern psychologists gain the following skills:

1. integrating and using the knowledge and skills from their academic training
2. identifying further competencies that are needed
3. obtaining this competence under supervision
4. gaining a better understanding of the types of work settings in which these skills can be used (HPCSA, 2019a)

In an IOP internship, the intern psychologist works to become a registered psychologist (category: Industrial) with the Professional Board for Psychology under the auspices of the HPCSA. An IOP who successfully completes the one-year internship, and the national board examination is qualified to offer and evaluate professional, psychologically based human behaviour-related services that promote and facilitate the understanding of behaviour, well-being and effectiveness amid the contemporary challenges that employers and employees face today (HPCSA, 2019a).

Vocational, professional career-focussed postgraduate students have a professional mindset in which they are motivated by the goals of contributing to society in a meaningful manner, aligned with their professional values and aspirations (Bates et al., 2019; Gill, 2020). Intern psychologists' sense of professional calling includes self-awareness, self-confidence, and the ability to achieve professional goals within the context of a professional purpose (Gill, 2020; Peeters et al., 2017). In addition to acquiring key occupation-related skills and practising their professional capabilities, internships allow intern psychologists to operationalise their professional purpose or calling (Bisland et al., 2019; Gill, 2020). It is clear that a strong sense of professional calling is positively correlated with several attributes, such as self-efficacy, core self-evaluation, objective and perceived abilities, career success,

employability, and professional competence (Chen et al., 2018; Dobrow & Heller, 2015; Guo et al., 2014; Lysova et al., 2018; Thompson & Bunderson, 2019).

Employability as an emerging industrial and organisational psychologist

The employability of newly qualified IOPs following tertiary education needs exploration in the literature and is of special significance in the South African environment, where the unemployment rate of young graduates is growing yearly (Coetzee & Beukes, 2010; Coetzee & Botha, 2013; Morrison, 2013; Nel & Neal-Shuttle, 2013). To be employable, newly qualified IOPs need to assess how well they are suited to the demands of the new 4IR world of work and demonstrate their ability to adapt to new career opportunities (Fugate et al., 2004; Van der Heijde & Van der Heijden, 2006). Coetzee et al. (2019) and Oraison et al. (2019) postulate the importance of professional purposeful mindsets, such as entrepreneurial orientation and marketability, in increasing intrinsic self-confidence in gaining employment, as well as in raising extrinsic self-confidence in gaining employment by linking the criteria of graduateness and employability with employers' expectations.

Bezuidenhout's (2011) framework of employability attributes is relevant to this study. Employability of the IOP is viewed by Bezuidenhout (2011, p. 78) as a psychosocial construct comprising a combination of attributes (dispositions, values, attitudes, skills) that enable proactive adaptability in changing environments. Industrial and Organisational Psychologists with employability attributes are believed to be more suitable for employment and are more likely to achieve career success. Similarly, Bezuidenhout (2011) describes employability as a concept that has many aspects, including competencies and personality characteristics (Fugate et al., 2004; Garnett, 2013; Propat, 2011; Van der Heijde & Van der Heijden, 2006). Employability is a function of an IOP's personality and value system and, therefore, can have profound effects on behaviour, according to Clark and Zukas (2013). Certain behaviours are always displayed in specific circumstances. Accordingly, dispositions that reflect employability result from specific experiences as well as confirmation from other experiences (Clark & Zukas, 2013). South Africa is currently experiencing an economic and employment crisis. Therefore, it is imperative that tertiary education institutions cultivate and constantly nurture the employability attributes of their graduates (Botha et al., 2015; Coetzee, 2012; Oraison et al., 2019).

According to Bezuidenhout (2011), there are eight distinguishable attributes for employability. These include: career self-management, cultural competence, self-efficacy, career resilience, sociability, entrepreneurial orientation, proactivity, and emotional literacy (Bezuidenhout, 2011; Botha, 2014; Coetzee, 2012). This clustering is based on three psychosocial behavioural dimensions, namely career, intrapersonal and interpersonal dimension. Within the intrapersonal dimension are employability attributes

(proactivity, self-efficacy, and emotional literacy), all of which play a vital role in continuing success in the workplace and in furthering an IOP's own development. Taking an active role in career planning and management is what proactivity entails. An IOP's self-efficacy refers to their confidence in their abilities to overcome challenges, achieve success, and accomplish personal goals. The ability to manage personal emotions and recognise the emotions of others is an example of emotional literacy (Bezuidenhout, 2011; Coetzee, 2012). As for the interpersonal dimension, this encompasses characteristics (sociability, cultural competence) that are essential in the workplace and generally in the various social situations that people encounter during their career. The ability to grow and successfully utilise social and career networks for career advancement is known as sociability. The ability to adapt to multiple cultural situations is the essence of cultural competence (Bezuidenhout, 2011; Botha et al., 2015; Coetzee, 2012).

Career success is associated with specific behaviours (career self-management, career resilience and entrepreneurial orientation) (Botha, 2014). By developing a continuous learning orientation, as well as behaviour patterns for managing your career, career self-management ensures sustained employability. Career resilience is an IOP's ability to adjust to organisational changes because of their personal agility and acceptance of work-related change. An entrepreneurial mindset is defined by the capacity to see potential opportunities in risks, to accept uncertainty, to be creative and innovative, and to drive career advancement autonomously (Bezuidenhout, 2011; Coetzee, 2012). Self-regulation has been identified as an important factor in determining employability. It is the capability to apply as many skills and resources as necessary to accomplish a goal (Porath & Bateman, 2006; Van der Heijde, 2014). According to the research literature, self-directedness and employability traits are both important aspects of self-regulation. Van der Heijde (2014) argues that self-regulation, self-directedness, and employability attributes lead to a results orientation and manageable behaviours. In addition, the two constructs address themes such as self-efficacy, autonomous behaviour, and proactive behaviour (Botha, 2014). In addition to being autonomous in their career and always learning, employable IOPs tend to focus on the future (Bezuidenhout, 2011; Botha, 2014; Clark & Zukas, 2013; Jackson, 2013). Conversely, Pathak et al. (2012) argue that proactive agency (self-directedness) is positively associated with academic achievement and continuous learning and growth (Botha et al., 2015).

Based on the self-determination theory (SDT), Coetzee and Engelbrecht (2020) argue that employability attributes are psychological factors that restore an IOP's sense of autonomy, which can be expressed in the self-perception of employability. These findings contribute to a better understanding of the link between perceived employability and career adaptability concerns for newly qualified IOPs. As soon as newly qualified IOPs encounter rapid changes in the 4IR job and employment conditions that affect their perceived employability, supportive career development practices could strengthen

their sense of competence and autonomy (Coetzee, 2017). Positive psychological employability capabilities are therefore imperative for facilitating the self-empowering career behaviour necessary to deal successfully with employment challenges posed by a more volatile employment environment (Coetzee, 2019).

Intern psychologists as employable industrial and organisational psychologists from a self-determination theory perspective

Exploring intern psychologists as employable IOPs is based on the premises of the SDT of human behaviour (Deci & Ryan, 2000). To qualify as a registered IOP, an intern psychologist must find intrinsic motivation and drive to practise independently as a professional registered with the HPCSA and offering behavioural consulting services for workplaces and society (Veldsman, 2020). Based on SDT (Deci & Ryan, 2000), autonomy, relatedness and competence constitute the necessary conditions for autonomous motivation, optimal human psychological functioning, well-being, and satisfaction of psychological needs. Intern psychologists' sense of competence, relatedness and autonomy are innate psychological growth-oriented needs that direct their engagement in meaningful, purposeful pursuits and allow them to exercise their capacities autonomously (volitionally) and to build satisfactory connections within social groups (Deci & Ryan, 2000; Deci et al., 2017).

The competence (effectance) motivational drive in SDT (Deci & Ryan, 2000; Tang et al., 2021) refers to the intern psychologist's endeavours to have a positive impact on the world and to achieve valued outcomes within it. Behavioural evidence suggests that innate psychological needs for relatedness or belongingness refer to the need to care for others and to feel connected with others within a social context or environment, while also feeling supported and cared for by others (Deci et al., 2017; Tang et al., 2021). Self-determination reflects the psychological need for autonomy, namely the freedom to pursue personal interests and aspirations with congruence, integration, and volition (Deci et al., 2017).

To complete the industrial psychology internship programme successfully and establish an independent practice, an intern psychologist must fulfil several psychological needs to feel competent, connected with others, and autonomous in their role as an IOP. Aspiring to become an employable professional IOP relates to the intern psychologist's sense of self-determined autonomous (extrinsic and intrinsic) motivation. As outlined in the SDT's notion of extrinsic motivation (Deci & Ryan, 2000; Tang et al., 2021), the motivation to become an IOP is driven by a belief in the significance of the role and the value of that role in a social context. Tang et al. (2021) explain intrinsic motivation as the ability to self-regulate and perform activities, roles and services with delight, pleasure, or satisfaction. When intern psychologists are motivated by their jobs, understand the value and purpose of their work, value intrinsic goals and feel autonomous, they

exhibit greater engagement and satisfaction, which lead to optimal results (Deci et al., 2017; Tang et al., 2021).

Research design

Research approach and strategy

To accomplish the study's aim, we employed a qualitative research approach within a specific academic case setting. This approach allowed us to gain inductive insight into intern psychologists' subjective views on the following research question: To what extent did the IOP master's professional coursework degree and internship programme help you to gain the skills and experience to function successfully as a competent and employable IOP? The responses to this question were collected using an open-ended questionnaire based on the guidelines in Züll (2016). Participants were able to respond freely and in their own words to the anonymous open-ended questionnaire, thus allowing rich descriptive data to be generated from these responses. Although the present study formed part of a study conducted by Coetzee et al. (2022), this study's question to the participants was uniquely relevant to the objective of this article. Therefore, there was no overlap with the data reported by Coetzee et al. (2022).

Research method

Research setting

This case study is set among IOP master's professional coursework degree and internship programme students within a South African academic institution. The students are based at 17 different organisations across diverse industries. Of the participants ($n = 17$), 11 (64%) had already completed their internship and 6 (36%) were still in the process of completion. One participant (6%) had already passed the HPCSA board examination, while 16 (94%) still had to pass it.

Entrée and establishing researcher roles

Participants were chosen from the 2020/21 group of master's IOP interns at the academic institution who have already completed their course work year of the master's programme. Also, participants had to have either already completed their internship programme or should have been close to completion. Participation was completely voluntary.

Research participants and sampling methods

Participants were selected voluntarily from the master's intern psychologist cohorts of the case academic institution for 2020/21. As a qualification for inclusion in the study, participants were expected to have completed their coursework year of the master's programme and to have completed, or be close to completing, their internship programme. The final sample of participants ($n = 17$) comprised black African interns ($n = 9$; 53%), Indian interns ($n = 3$; 18%), and white interns ($n = 5$; 29%). Most of the sample comprised female interns ($n = 13$; 77%), with just four

male interns (23%). A mean age of 36 years (standard deviation [SD] = 7.09) was found in the sample. The majority (88%) of the interns ($n = 15$) were employed, whereas one participant was self-employed and one was unemployed. A total of 71% ($n = 12$) of the participants felt that the internship programme had enhanced their employability as professional IOPs by providing them with important IOP skills and experience. According to Creswell (2013), the sample size of 17 was deemed adequate for data analysis in qualitative studies.

Data collection and recording methods

Those interested in participating were contacted by the case department's internship coordinator, who had a record of the department's intern psychologists and their progress. A URL link to the open-ended survey questionnaire was provided to the participants. An Excel spreadsheet was automatically created to collect the responses of participants anonymously. Based on a review of the survey responses, it appeared a point of data saturation was reached, thus proceeding to the data analysis phase.

Strategies employed to ensure data quality and integrity

To ensure the study was trustworthy (i.e., credible, transferable, reliable, and confirmable), we followed the guidelines provided by Nowell et al. (2017). Credibility was ensured using verbatim quotes, a literature review, and applicable theories (Lewis et al., 2014; Ravitch & Carl, 2016). Participants' shared subjective experiences were collected and presented verbatim while the researchers ensured their own biases did not impact the data collection, data analysis or reporting of the findings, but the voice of the participants were accurately reflected (Creswell & Creswell, 2017). The integrity of the data was established through record-keeping of the data coding, labelling, and derived categories and themes.

Data analysis and reporting

Independently reviewing and re-evaluating the qualitative responses highlighted the key themes that were relevant to the study's objectives and literature review. Our approach to coding and identifying categories was informed by Al-Asfour et al.'s (2021) guidelines. To identify subthemes and their frequency, the data were coded, and categories and themes were identified independently by each researcher. A frequency label was assigned to each category and theme found across all participants according to general (found in all participants), typical (found in half or more of the participants), or variant (found in less than half but more than one or two participants).

Ethical considerations

The university's research ethics committee had approved the study (ERC Reference #2021_CRECE_018[FA]). Informed consent and anonymous participation were required. As a result, privacy and confidentiality were guaranteed for the group-based responses.

Results

The findings are reported in terms of the aim of this study, which was to explore the effectiveness of the master's professional coursework degree and internship programme in qualifying intern psychologists as employable IOPs. The findings will be first illustrated in Table 1 and Table 2 to present an overview of the overall experiences of the participants, whereafter a more detailed analysis of the participants' experiences will be described, supported by verbatim quotations.

In Table 1, we present the participants' experience of the value provided by the MCom IOP coursework year, that is,

TABLE 1: Value provided by MCom industrial and organisational psychology coursework year towards successful completion of the internship programme.

Value provided/experienced	Definitely/Highly satisfied	Moderately satisfied to dissatisfied
Equipped interns with required competencies	12 [71%]	5 [29%]
Prepared interns for HPCSA board examination	8 [47%]	9 [53%]
Provided important experience in qualifying interns as competent I/O psychologists (IOPs)	13 [76%]	4 [24%]

IOP, industrial and organisational psychology; HPCSA, Health Professions Council of South Africa.

year 1, in equipping them with the necessary competencies and experience needed to ensure that they could successfully complete their internship programme and prepare for the HPCSA board examination. From Table 1, it is evident that the students required additional support in preparing for their HPCSA board examination. Nevertheless, the students' responses leaned towards the 'highly satisfied' range in terms of how the programme had equipped them with the necessary competencies and experience to embark on their internship year with confidence.

In Table 2, we present the participants' experience and satisfaction with the contribution of the internship programme, that is, year 2 of the degree, towards their employability and readiness to enter the workplace equipped with the necessary competencies to be regarded as professional IOPs. The contribution of the internship programme to employability/work readiness; their levels of confidence pertaining to ethics; research; HPCSA legislation; and organisational policies and procedures seemed to lean towards the 'highly satisfied' end of the scale. Conversely, diagnostics and assessment; interventions; report writing,

TABLE 2: Contribution of internship programme to employability or work-readiness competency as a professional industrial and organisational psychologist.

Contribution of internship programme to employability/work readiness	Definitely/Highly satisfied	Moderately satisfied to dissatisfied
Enhanced employability	12 [71%]	5 [29%]
Readiness and confidence to fulfil role as professional IOP	12 [71%]	5 [29%]
Development of important IOP skills and experience	12 [71%]	5 [29%]
Contribution of internship programme to IOP scope-of-practice competencies		
Diagnostics and assessment		
Confidence in conducting a range of psychological assessments	9 [53%]	8 [47%]
Confidence in conducting IOP-related behavioural diagnostics on an individual level	9 [53%]	8 [47%]
Confidence in conducting IOP-related behavioural diagnostics on a team level	9 [53%]	8 [47%]
Confidence in conducting IOP-related behavioural diagnostics on an organisational level	11 [65%]	6 [35%]
Interventions		
Confidence in designing and facilitating IOP-related interventions on an individual level	12 [71%]	5 [29%]
Confidence in designing and facilitating IOP-related interventions on a team level	11 [65%]	6 [35%]
Confidence in designing and facilitating IOP-related interventions on an organisational level	10 [59%]	7 [41%]
Report writing		
Confidence in writing up IOP-related professional reports for a wide range of audiences	9 [53%]	8 [47%]
Research		
Confidence in conducting scientific IOP-related research to identify and address individual-, team- and organisation-level problems	13 [76%]	4 [24%]
Ethics		
Confidence in applying principles of ethics in IOP-related assessment, diagnosis, and intervention practices	13 [76%]	4 [24%]
Networks for referral		
Confidence in establishing a network of professionals for client referral purposes	6 [35%]	11 [65%]
HPCSA Annexure 12/legislation		
Confidence in applying the rules and regulations of HPCSA Annexure 12 (Form 223) to IOP professional practice	13 [76%]	4 [24%]
Organisational policies/procedures		
Confidence in assisting the organisation in the development of workforce-related policies and procedures	14 [82%]	3 [18%]
Supervision		
Confidence in supervising and mentoring other IOP practitioners	10 [59%]	7 [41%]
Value-added evaluation		
Confidence in ability to evaluate the impact and value/contribution of IOP-related diagnostics, assessment and interventions on individual, team, and organisation levels	8 [47%]	9 [53%]

IOP, industrial and organisational psychology; HPCSA, Health Professions Council of South Africa.

networks for referral; supervision; and value-added evaluation yielded more responses towards the 'moderately satisfied/dissatisfied' range.

Four main themes emerged from the qualitative analysis of the data describing the lived experiences of the participants (i.e. the master's intern psychologists): (1) programme effectiveness promotes holistic development and instils confidence; (2) achievement of applied personal and professional competence – practical and theoretical; (3) understanding the IOP's role and identity and the need for continuous personal and professional growth; and (4) the importance of a support network and the need for further support.

Theme 1: Programme effectiveness promotes holistic development and instils confidence

Overall, the participants experienced the master's coursework degree at Unisa to be well structured and they noticed how the programme is focussed on holistically developing them in many ways, including by broadening their thinking and skills set while preparing them for their internship year. One student stated that they often recommend the programme to others, on condition that the latter can work independently and be self-starters. This view was supported by another participant, who observed that a proactive mindset is key to gaining experience and succeeding. This theme is depicted in the following quotations:

'The MCom coursework year set me up well for my internship. The career guidance module in specific was incredibly helpful later on.' (Participant 4, Employed, Age 30)

'The master's programme at UNISA is well-structured and definitely contributed to broadening my thinking and skillset.' (Participant 5, Employed, Age 30)

'I do often recommend UNISA to independent, self-starter students who require minimal hand holding.' (Participant 16, Employed, Age 45)

'I gained a lot of experience, but it was through my proactiveness.' (Participant 9, Intern, Age 35)

Another participant agreed with the views of the aforementioned participants and said that a student should be cognisant of the reality that self-directed learning is important at times. Such an approach enables students to be flexible, which is believed to allow them to gain broader knowledge and experience. Finally, one participant noticed how her previous experience and the skills she had gained by that point resulted in an enriched internship experience, as it increased her exposure and skills gained:

'I have been very fortunate in that the organisation I am in has allowed me a lot of freedom in selecting my activities to fulfil the internship requirements. While this means learning is self-directed at times, it has allowed so much freedom to really explore the field and gain immense knowledge and experience.' (Participant 11, Intern, Age 39)

'My skills and experience over the years also contributed to broadening my exposure on the internship programme.' (Participant 12, Employed, Age 51)

Some participants highlighted how their confidence increased, especially within specific sub-fields of IOP:

'I have developed in the field of research, psychometric and organisational diagnosis a lot.' (Participant 1, Intern, Age 40)

'So far I am confident when it comes to HR personnel psychology and talent management would.' (Participant 2, Unemployed, Age 39)

'I gained deeper understanding of Psychometrics [during internship].' (Participant 1, Intern, Age 40)

Overall, the programme seems to succeed in its aim to promote holistic development effectively in all the sub-fields of IOP. At the same time, it instils confidence in the students, helping them to progress from where they feel that they know very little to a point where they are confident and empowered to believe that they can contribute positively in the workplace and – as stated by one participant – 'bloom'. Another participant observed how the programme helped them to fulfil their current role better. The following quotations highlight their confidence and subsequent evidence of employability:

'Grown from knowing very little to this confident IOP.' (Participant 7, Employed, Age 49)

'As an Intern almost completed with my programme, I can say that I am confident in my ability to enhance the workplace.' (Participant 8, Intern, Age 29)

'I feel in the six months of my internship, I have become a different person. My growth has been immense, and I see that in my confidence with which I tackle new tasks.' (Participant 11, Intern, Age 39)

'The internship programme equipped me with skills and competencies to practice as an aspiring IO psychologist.' (Participant 10, Employed, Age 30)

'My growth journey to date has grown the seed of an IO psychologist and I believe it is time to bloom.' (Participant 8, Intern, Age 29)

'My learning and personal growth has definitely enhanced over the years. I believe my qualification, skills and knowledge gained is assisting me in managing my role I am in.' (Participant 12, Employed, Age 51)

Theme 2: Achievement of applied personal and professional competence – Practical and theoretical

The master's programme seems to achieve its goal of developing IOP master's students both personally and professionally but it also empowers them with both the theoretical and practical knowledge and experience they require to become competent, employable IOPs that can have an impact in the workplace. The programme is experienced as being hands-on by the participants, which they gratefully note instils greater confidence in them, as is evident from the following participants' comments:

'I learned a lot as student, equipped with theoretical knowledge and was challenged to reflect and develop myself both personally and professionally.' (Participant 10, Employed, Age 30)

'Unisa gave the best theoretical and practical experience. I'm grateful.' (Participant 13, Intern, Age 34)

'UNISA also tries to give practical experience, which is important, when I started my internship, I was able to refer to my assignments and learnings from the coursework. The internship provided practical exposure as well. I gained skills and became competent in various IO psychology activities and processes.' (Participant 10, Employed, Age 30)

'Unisa provides a wonderful master's programme that is hands on and facilitates the learning an acquiring of skills, knowledge and abilities necessary to function well in the working world.' (Participant 8, Intern, Age 29)

'The skills and experience gained during my internship was invaluable and very necessary.' (Participant 5, Employed, Age 30)

Many participants highlighted specific skills, knowledge, and competence that they developed through this IOP master's coursework programme and internship. These include self-awareness, professional competence, dealing with ethical issues, working autonomously, solving problems, conducting scientific research, increased self-awareness and self-reflection, critical thinking skills, resilience, and technical knowledge. One participant also noticed how the internship programme exposed them to different functions in the business, leading to a broader view and more in-depth understanding of the business. But perhaps most important of all, this programme instilled confidence in the participants personally, as well as in the IOP profession, leaving them feeling empowered:

'I couldn't have chosen a better institution and I am also grateful that I was selected for the programme for the following reasons: (a) Self-awareness – I learnt a lot about myself and this has positioned me well as an IOP (b) Professional competence – my confidence as an IOP is based on the skills/experience gained from the masters programme and internship (c) Ethics – the programme sensitised me thoroughly to the ethical dilemmas that one can encounter as an IOP professional.' (Participant 3, Employed, Age 29)

'I've been trained and supervised in such a way that promotes autonomy.' (Participant 8, Intern, Age 29)

'Ethically rooted practices which aims to increase the well-being and effectiveness of others as well as myself.' (Participant 8, Intern, Age 29)

'Through my master's graduate and IOP intern program I have learned to solve problems and find appropriate ethical solutions by collecting, assessing and integrating researched scientific knowledge.' (Participant 14, Employed, Age 34)

'Unisa Master's program taught me the value of self-awareness and how self-reflection could be utilized as a developing tool.' (Participant 14, Employed, Age 34)

'Throughout the process I enhances my critical thinking skills, resilience, technical knowledge and confidence in myself and my profession.' (Participant 17, Employed, Age 36)

'Yes, I believe it did. I was exposed to a variety of working departments and understand the functioning of business more in depth.' (Participant 8, Intern, Age 29)

Contrary to the overwhelmingly positive comments indicated here, two participants observed three specific areas in which

they felt that they required more in-depth exposure to the programme. One participant observed that they were not yet confident enough in offering consulting or private practice services, while another felt that they needed more experience in report writing and giving psychometric feedback, as well as in gaining a deeper understanding of ethical practices in the field of IOP:

'The internship broadened my knowledge of the different areas of IOP, but it certainly didn't give me enough experience to offer consulting or private practice services in any of the areas.' (Participant 4, Employed, Age 30)

'I also think there is also a gap with assisting students develop the skillsets needed for psychometric feedback and report writing sessions, as well as ethical practices within IOP.' (Participant 5, Employed, Age 30)

Theme 3: Understanding the industrial and organisational psychology's role and identity and the need for continuous personal and professional growth

It is evident from the participants' comments that they became aware of the role that an IOP must play in an organisation and what this role entailed. As the IOP master's students progressed through the coursework and internship, it seems that they gained a strong sense of their responsibility to use their newly acquired knowledge and competence in providing organisations and human resource practitioners, specifically, with the necessary tools and guidance to address organisational needs that would enable them to function optimally. Naturally, their role should be well aligned and fall within the scope of practice of an IOP, as prescribed by the HPCSA. This is depicted in the following participant's comment:

'In the process I learned that an Industrial Psychologist has a responsibility to find a way to link their knowledge with organisational needs to enable them to bring suitable tools and information that could assist them with their needs.' (Participant 14, Employed, Age 34)

'During the IOP intern program I learned that an Industrial Psychologist background allows them to identify and use psychological concepts like individual differences, motivation and person-job fit to develop useful human resource practices in organisations where HR managers cannot.' (Participant 14, Employed, Age 34)

'I enjoyed the learning and the knowledge gained through the master's degree, however my confidence levels and my identity as a IOP grew during the internship.' (Participant 17, Employed, Age 36)

'The skills and experience I gained from the internship programme assisted me to fully understand the Industrial Psychologist professional conduct and orientated me to practice within the scope of Industrial and Organisational Psychology practice and competence.' (Participant 3, Employed, Age 29)

Furthermore, participants described how their newly acquired skills and knowledge empowered them to be more cognisant of the needs of their organisation's experience. They also learnt how they, as IOPs, can have an impact and add value by addressing, in an ethical manner, the identified

gaps in the organisation on individual, group and organisational levels:

'The skills and experience I gained from the internship programme made me aware of IOP services organisations require and could utilize.' (Participant 14, Employed, Age 34)

'I also am able to identify the gaps where and IO psychologist may provide value and service.' (Participant 8, Intern, Age 29)

'The internship programme helped me to consider the ethical requirements and obligations of an IOP and the skills and services an IOP can provide at an individual, group and organisational level.' (Participant 17, Employed, Age 36)

While the students acknowledged that the master's coursework programme and internship comprised a unique and challenging experience, they explicitly stated how it enabled them to grow both personally and professionally. One participant emphasised the value that they found in the personal and professional plans that they had to design and work with, as well as how these guided them through a very challenging time, building their resilience. The following participant's comment highlights a sense of gratefulness for how much they learnt and were able to achieve, thus helping them to mature and become competent IOP graduates:

'I had a challenging yet wonderful experience. Rome was not built in one day and my focus is on continuous learning and development.' (Participant 6, Employed, Age 36)

'My coursework year was a unique opportunity for professional and personal growth, I learnt a lot.' (Participant 9, Intern, Age 35)

'I have grown, evolved and matured since then.' (Participant 16, Employed, Age 45)

'I learnt a lot about myself and the IOP industry. I enjoyed the personal development plans because it helped me grow. The resilience I learned helped deal with depression after losing my mother, I would be worse off without the development tools the department gave us.' (Participant 15, Employed, Age 27)

Theme 4: The importance of a support network and the need for further support

As noticed in theme 3, participants emphasised the challenging and unique nature of the master's coursework programme and internship. It is therefore not surprising that the participants shared their experience of and need for support during these two years. On a positive note, the participants shared the importance of obtaining support from their organisation and supervising psychologist, their master's group peers and the academic and support staff at the university. The value that these support networks offered in enhancing their employability and enabled them to graduate are evident in the following quotations:

'Yes, I was fortunate to have had access to an organisation that was committed to my development combined with an amazing supervising psychologist that continuously challenged my thoughts enabling me to develop my critical thinking skills and delivering high quality results.' (Participant 6, Employed, Age 36)

'The coursework year was incredibly tough, but it helped me develop a group of peers to then support each other through the next dissertation year that was very isolated. And the peer group

was also very helpful for the internship year.' (Participant 4, Employed, Age 30)

'My experience with Prof [A], who was Ms [A] back then, will remain a testament to the goodness of human nature. And every single face to face interaction with Prof [B] is a joy to think back on. Ms [C] is one of a kind [smiley face]. As you can tell, my people experiences are extremely positive and warm.' (Participant 16, Employed, Age 45)

Regrettably, not all participants experienced the support they received as adequate, especially during their second year while completing their research dissertation and internship. Fortunately, they were able to describe the frustrations they experienced freely, specifically pertaining to their research dissertation and the internship. From the following comments, it is evident that one of the students would have liked a more engaged relationship with their research and internship supervisor, relying on their guidance and further education, whether that was to complete their research dissertation or to develop an internship programme in accordance with the guidelines of the HPCSA. One participant was quite disheartened by the fact that their tailored internship programme was rejected and that the HPCSA does not give credit for previous experience and overall life experience. This participant emphasised the importance of an engaged relationship with a supervisor, who should be there to educate and inform a prospective student of the purpose, value, and objective of the role of the supervising psychologist and why the HPCSA prescribes this:

'I however think that UNISA holds back students in M2 (research) because lecturers take too long to work on submitted research chapters, they expect students to know everything instead of treating supervision as a process to educate and guide the student. Honest students who do their own research are the one who suffer. The culture encourages unethical behaviour of which as a student I refuse to be part of. This needs to be addressed.' (Participant 1, Intern, Age 40)

'However, I do believe that there is a gap with preparing and assisting students with structuring their internships/ finding internships.' (Participant 5, Employed, Age 30)

'I have yet to start the internship – HPCSA have rejected my Tailored Proposal. If I were a young graduate, I believe that an internship program will help to build skills and experience required to be considered a competent IOP. My view is that internship program objectives should be designed to consider the skill, competence, related work experience and overall life experience that an aspiring IOP has developed to date; thereby highlighting the competency gaps that the aspiring IOP would need to address and become proficient in before he/she can be considered a competent IOP.' (Participant 14, Employed, Age 45)

One participant observed that they were displeased with the processes. Regrettably, they did not provide sufficient details to enable us to ascertain which specific processes were displeasing – or whether they were all experienced as unpleasant:

'My process experiences are not as pleasant.' (Participant 16, Employed, Age 45)

Discussion

Outline of the results

This study succeeded in exploring the lived experience of intern psychologists and how they perceive the effectiveness of the IOP master's professional coursework degree and internship programme in enabling them to become competent and employable IOPs. This is a unique study as there seems to be limited previous research pertaining to the extent to which intern psychologists in South Africa become employable IOPs. From the findings of this study, as depicted in Table 1 and Table 2 above, as well as the verbatim comments of the participants, it can be concluded that the intern psychologists are highly satisfied with the effectiveness of this programme. The objective of this professional IOP master's coursework degree, namely to apply teaching, learning and support practices, both during the coursework year and the internship programme, meets its objective in delivering competent graduates who can enter the workplace with confidence as employable IOPs. This programme further enables the intern psychologist to align their development to the SDT of human behaviour, which includes developing and enhancing intrinsic and autonomous motivation, developing the competence to practice independently as an IOP (Deci & Ryan, 2000; Veldsman, 2020).

In keeping with the HPCSA's (2019b) scope-of-practice-aligned minimum competencies for professional IOPs, the participants found that although the IOP master's professional coursework degree is challenging and unique, it is well structured (theoretically and practically) and creates a safe environment, while also providing flexibility for the participants to grow both personally and professionally. The programme effectively promotes holistic development and the participants appreciated that it encouraged self-directed learning, enhanced their ability to work independently and imparted a strong sense of confidence and empowerment in terms of the positive contribution that they could make as employable graduates in the field of IOP (Dunne, 2017). In SDT, this need to have a positive impact on the world is aligned to competence motivational drive (Deci & Ryan, 2000; Tang et al., 2021). The participants of this study clearly indicated their need for relatedness or belongingness, and they strive towards a position of caring for and connecting with others, yet also receiving the same in return (Deci et al., 2017; Tang et al., 2021).

Succeeding in its aim to empower intern psychologists with specific skills, knowledge and competence, the participants emphasised, aligned to SDT, how – with the assistance of personal and professional development plans – they had been able to grow and mature in developing greater self-awareness and self-reflection, critical thinking skills, resilience, technical knowledge, professional competence, as well as in dealing with ethical issues, working autonomously, solving problems and conducting scientific research. In addition, the participants also gained a well-developed sense of the role and identify of an IOP and how to identify individual, group and organisational needs and provide the

necessary tools and guidance for meeting organisation's strategic objectives in an ethical manner (Oraison et al., 2019).

The findings also emphasise the importance, like SDT of feeling cared for, by having a solid support network to assist intern psychologists in navigating through this challenging and unique process that is the master's coursework programme and internship. Most participants highlighted their high level of satisfaction with the support they received during this programme. They emphasised the importance of being supported not only by their organisation and supervising psychologist but also by the academic and support staff at the university and their peers in the master's programme. Only two participants expressed the need for more support and exposure: One said that they still lack sufficient confidence in consulting or private practice services, while the other felt they were not yet confident enough and needed more exposure and support in psychometric report writing and feedback, along with becoming more confident in dealing with ethical practices.

Practical implications

The results of this study shed more light on the extent to which intern psychologists perceive the effectiveness of the professional IOP master's coursework degree and internship programme as an enabler enhancing their employability. Considering the practical implications of the findings, the participants confirmed the effectiveness of the programme and how it contributes towards them becoming competent IOP's and how this empowers them to enter the workplace with confidence. Thus, when implemented such programmes should be aligned to the SDT of human behaviour as it also enables the further development and enhancement of intrinsic and autonomous motivation, which they need to work independently.

During the development of the programme, in addition to being well structured, allow for flexibility and create a safe context in which the students can apply self-directed learning. Consideration should also be given to how this programme promotes feelings of relatedness and belonging where students feel they are cared for and have a mutually connected relationship with all stakeholders involved. Thus, within the scope of SDT, care should be taken to establish a strong support network, which incorporates stakeholders both from the academic institution and the internship organisation.

Limitations and recommendations

This research only considered the experiences of a small subset of participants. Obtaining the experiences of more intern psychologists, as well as other stakeholders such as supervisors, the HPCSA and the intern organisation, will enable richer evidence to enhance the structured internship programme and supervision guidelines. Furthermore, it is important to observe how the organisational context in which the students were completing their internships affected their experiences.

Further research is encouraged to explore how the less confident students, who felt that they required additional support to become competent and confident in specific areas of the programme, could be assisted. This might involve additional coaching and/or tuition from the academic staff and their research and internship supervisors.

It is also recommended that future research be conducted among the supervisors involved in the master's coursework programme, that is, the dissertation supervisors and internship supervising psychologists, to determine how they experience their role and their relationship with the student during both the writing of the master's dissertation and the internship. The aim of such a study would be to obtain recommendations from these supervisors on how the students' experience could be enriched by implementing measures to ensure that the student and supervisor role and relationship is clearly outlined and strengthened to produce excellent, employable IOPs.

Conclusion

In conclusion, the professional master's coursework degree and internship programme, informed by SDT, are effective in qualifying intern psychologists as employable IOPs. This is evident from the results, highlighting, firstly, how the programme effectiveness promotes holistic development and instils confidence in intern IOPs. Secondly, the results show that the programme succeeds in accomplishing applied personal and professional competence, both theoretically and practically. Thirdly, the results clearly indicate how the IOP's role and identity are clarified for the intern psychologists, in keeping with the HPCSA requirements, and how the interns experienced continuous personal and professional growth. Finally, the results indicated the important role that a strong support network plays in enhancing the effectiveness of the master's professional coursework degree and internship programme and in acknowledging that every intern psychologist's needs are unique and should be accommodated to produce a well-rounded, competent, and employable IOP.

Acknowledgements

Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

R.M.O., A.V.N. and M.C. contributed equally to the article.

Funding information

The authors received no financial support for the research, authorship, and/or publication of this article.

Data availability

Data are available only on approval of the research institution's research ethics committee, following a formal and reasonable request to R.M.O., A.V.N. and M.C.

Disclaimer

The views and opinions expressed in this article are those of the authors and are the product of professional research. It does not necessarily reflect the official policy or position of any affiliated institution, funder, agency, or that of the publisher. The authors are responsible for this article's results, findings, and content.

References

- Al-Asfour, A., Tlaiss, H.A., & Shield, S.W. (2021). Work experiences of native Americans: A qualitative study. *Journal of Career Development*, 48(2), 105–119. <https://doi.org/10.1177/0894845319832129>
- Alexander, R. (2022). *Assessing the ability of the national innovation system of South Africa to facilitate the Fourth Industrial Revolution*. SARChI Industrial Development Working Paper Series WP 2021-8b. SARChI Industrial Development, University of Johannesburg.
- Ali, A., & Muhammed, A.K. (2018). Understanding the role of internships as an activity-based learning: A case study. *Journal of Education and Educational Development*, 5(2), 92–106. <https://doi.org/10.22555/joeed.v5i2.1864>
- Anjum, S. (2020). Impact of internship programs on professional and personal development of business students: A case study from Pakistan. *Future Business Journal*, 6(2), 1–13. <https://doi.org/10.1186/s43093-019-0007-3>
- Bates, G.W., Rixon, A., Carbone, A., & Pilgrim, C. (2019). Beyond employability skills: Developing professional purpose. *Journal of Teaching and Learning for Graduate Employability*, 10(1), 7–26. <https://doi.org/10.21153/jtlge2019vol10no1art794>
- Bezuidenhout, M. (2011). *The development and evaluation of a measure of graduate employability in the context of the new world of work*. Unpublished master's dissertation. University of Pretoria.
- Bisland, C., Carter, L., & Wood, L.N. (2019). Work integrated learning internships in transnational education: Alumni perspectives from Vietnam. *Education + Training*, 61(3), 359–373. <https://doi.org/10.1108/ET-07-2017-0094>
- Botha, J. (2014). *The relationship between adult learner self-directedness and employability attributes – An OD perspective*. Unpublished master's dissertation. University of South Africa.
- Botha, J., Coetzee, M., & Coetzee, M. (2015). Exploring adult learners' self-directedness in relation to their employability attributes in open distance learning. *Journal of Psychology in Africa*, 25(1), 65–72. <https://doi.org/10.1080/143330237.2015.1007603>
- Bowles, M., Ghosh, S., & Thomas, L. (2020). Future-proofing accounting professionals: Ensuring graduate employability and future readiness. *The Journal of Teaching and Learning for Graduate Employability*, 11(1), 1–21. <https://doi.org/10.21153/jtlge2020vol11no1art888>
- Box-Steffensmeier, J.M., Burgess, J., Corbetta, M., Crawford, K., Duflo, E., Fogarty, L., Gopnik, A., Hanafi, S., Herrero, M., Hong, Y-y., Kameyama, Y., Lee, T.M.C., Leung, G.M., Nagin, D.S., Nobre, A.C., Nordentoft, M., Okbay, A., Perfors, A., Rival, L.M., Sugimoto, C.R. et al. (2022). The future of human behaviour research. *Nature Human Behaviour*, 6(1), 15–24. <https://doi.org/10.1038/s41562-021-01275-6>
- Castelo-Branco, I., Oliveira, T., Simões-Coelho, P., Portugal, J., & Filipe, I. (2022). Measuring the fourth industrial revolution through the industry 4.0 lens: The relevance of resources, capabilities and the value chain. *Computers in Industry*, 138, 103639. <https://doi.org/10.1016/j.compind.2022.103639>
- Chen, J., May, D.R., Schworer, C.E., & Augelli, B. (2018). Exploring the boundaries of career calling: The moderating roles of procedural justice and psychological safety. *Journal of Career Development*, 45(2), 103–116. <https://doi.org/10.1177/0894845316671214>
- Clark, M., & Zukas, M. (2013). A Bourdieusian approach to understanding employability: Becoming a 'fish in water'. *Journal of Vocational Education & Training*, 65(2), 208–219. <https://doi.org/10.1080/13636820.2013.782887>
- Coetzee, M. (2012). A framework for developing student gradueness and employability in the economic and management sciences at the University of South Africa. In M. Coetzee, J. Botha, N. Eccles, N. Holtzhausen, & H. Nienaber (Eds.), *Developing student gradueness and employability: Issues, provocations, theory and practical guidelines* (pp. 119–152). Knowledge Resources.
- Coetzee, M. (2017). Psycho-social career preoccupations and employability capacities in the work context. In M. Tomlinson, & L. Holmes (Eds.), *Graduate employability in context: Research, theory and debate* (pp. 295–315). Palgrave MacMillan.
- Coetzee, M. (2019). A framework for assessing and developing self-regulatory positive psychological career attributes for sustained employability. In L.E. Van Zyl, & S. Rothmann Sr. (Eds.), *Positive psychological intervention design and protocols for multi-cultural contexts* (pp. 217–237). Springer Nature.

- Coetzee, M., & Beukes, C. (2010). Employability, emotional intelligence and career preparation support satisfaction among adolescents in the school-to-work transition phase. *Journal of Psychology in Africa*, 20(3), 439–446. <https://doi.org/10.1080/14330237.2010.10820396>
- Coetzee, M., & Botha, J. (2013). Undergraduate students' self-directedness in relation to their examination preparation styles in Open Distance Learning. *Progressia*, 35(2), 34–57. Retrieved from <https://hdl.handle.net/10520/EJC149403>
- Coetzee, M., & Engelbrecht, L. (2020). How employability attributes mediate the link between knowledge workers' career adaptation concerns and their self-perceived employability. *Psychological Reports*, 123(4), 1005–1026. <https://doi.org/10.1177/003294119844981>
- Coetzee, M., Ferreira, N., & Potgieter, I.L. (2019). Employer requirements and employability mindsets influencing graduate workers' self-confidence in gaining employment. *African Journal of Career Development*, 1(1), a4. <https://doi.org/10.4102/ajcd.v1i1.4>
- Coetzee, M., & Oosthuizen, R.M. (2019). *Health Professions Council of South Africa: Professional board for psychology – Programme review and evaluation – Self evaluation report*. Department of Industrial and Organisational Psychology, School of Management Sciences, College of Economic and Management Sciences, University of South Africa.
- Coetzee, M., Oosthuizen, R.M., & Van Niekerk, A. (2022). Industrial psychologist intern: Professional purpose, skills and practice confidence. *South African Journal of Industrial Psychology*, 48, a2016. <https://doi.org/10.4102/sajip.v48i0.2016>
- Creswell, J.W., & Creswell, J.D. (2017). *Research design: Qualitative, quantitative and mixed method approaches*. Sage.
- Cross, C., & Carbery, R. (2022). *Organisational behaviour*. Bloomsbury.
- Deci, E.L., Olafsen, A.H., & Ryan, R.M. (2017). Self-determination theory in work organizations: The state of a science. *Annual Review of Organizational Psychology and Organizational Behaviour*, 4, 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Deci, E.L., & Ryan, R.M. (2000). The 'what' and 'why' of goal pursuits: Human needs and the self-determination behaviour. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01
- Department of Health. (2011). *Health Professions Act 56 of 1974: Regulations defining the scope of the profession of psychology*. No. R. 704. Government Printers, Pretoria, RSA.
- Dobrow, R.S., & Heller, D. (2015). Follow your heart or your head? A longitudinal study of the facilitating role of calling and ability in the pursuit of a challenging career. *Journal of Applied Psychology*, 100(3), 695–712. <https://doi.org/10.1037/a0038011>
- Dunne, J. (2017). Work placement reflective assessment and employability enhanced through highlighting graduate attributes. *Journal of Teaching and Learning for Graduate Employability*, 8(1), 40–59. <https://doi.org/10.21153/jtlge2017vol8no1art616>
- Fugate, M., Kinicki, A., & Ashforth, B. (2004). Employability: A psycho-social construct, its dimensions and applications. *Journal of Vocational Behavior*, 65(1), 14–38. <https://doi.org/10.1016/j.jvb.2003.10.005>
- Garnett, J. (2013). Musician and teacher: Employability and identity. *Music Education Research*, 15(1), 1–18. <https://doi.org/10.1080/14613808.2013.847073>
- Gault, J., Leach, E., & Duey, M. (2010). Effect of business internships on job marketability: The employers' perspective. *Education + Training*, 52(1), 76–88. <https://doi.org/10.1108/00400911011017690>
- Gill, R. (2020). Graduate employability skills through online internships and projects during the COVID-19 pandemic: An Australian example. *The Journal of Teaching and Learning for Graduate Employability*, 11(1), 146–158. <https://doi.org/10.21153/jtlge2020vol11no1art946>
- Goss, H. (2022). Student learning outcomes assessment in higher education and in academic libraries: A review of the literature. *The Journal of Academic Librarianship*, 48(2), 102485. <https://doi.org/10.1016/j.acalib.2021.102485>
- Guo, Y., Guan, Y., Yang, X., Xu, J., Zhou, X., She, Z., Jiang, P., Wang, Y., Pan, J., Deng, Y., Pan, Z., & Fu, M. (2014). Career adaptability, calling and the professional competence of social work students in China: A career construction perspective. *Journal of Vocational Behavior*, 85(3), 394–402. <https://doi.org/10.1016/j.jvb.2014.09.001>
- HPCSA. (2019a). *Requirements in respect of internship programmes in industrial psychology: Guidelines for universities, internship training institutions and intern industrial psychologists*. The Professional Board for Psychology, Health Professions Council of South Africa.
- HPCSA. (2019b). *Minimum standards for the training of industrial psychology*. The Professional Board for Psychology, Health Professions Council of South Africa.
- Hurst, J.L., Thye, A., & Wise, C.L. (2014). Internships: The key to career preparation, professional development, and career advancement. *Journal of Family & Consumer Sciences*, 106(2), 58–62. Retrieved from <https://eric.ed.gov/?id=E11049540>
- Jackson, D. (2013). Student perceptions of the importance of employability skill provision in business undergraduate programmes. *Journal of Education & Business*, 88(5), 271–279. <https://doi.org/10.1080/08832323.2012.697928>
- Lewis, J., Ritchie, J., Ormston, R., & Morrell, G. (2014). Generalising from qualitative research. In J. Ritchie, J. Lewis, M.C. Nicholls, & R. Ormston (Eds.), *Qualitative research practise: A guide for social students and researchers* (pp. 347–362). Sage.
- Lysova, E.I., Jansen, P.G., Khapova, S.N., Plomp, J., & Tims, M. (2018). Examining calling as a double-edged sword for employability. *Journal of Vocational Behaviour*, 104, 261–272. <https://doi.org/10.1016/j.jvb.2017.11.006>
- Morrison, A. (2013). A class act? Lecturers' views on undergraduates' employability. *British Journal of Sociology of Education*, 31(6), 719–735. <https://doi.org/10.1080/01425692.2013.802420>
- Nel, H., & Neale-Shuttle, M. (2013). Examining the evidence: Graduate employability at NMMU. *South African Journal of Higher Education*, 27(2), 437–453. <https://hdl.handle.net/10520/EJC144268>
- Newman, A. (2022). *Palgrave handbook of African education and indigenous knowledge*. Palgrave Macmillan.
- Nowell, L.S., Norris, J.M., White, D.E., & Moules, N.J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International journal of qualitative methods*, 16(1), 1609406917733847. <https://doi.org/10.1177/1609406917733847>
- Oraison, H., Konjarski, L., & Howe, S. (2019). Does university prepare students for performance? Alignment between graduate attributes, accreditation requirements and industry employment criteria. *Journal of Teaching and Learning for Graduate Employability*, 10(1), 173–194. <https://doi.org/10.21153/jtlge2019vol10no1art790>
- Padmanabhanunni, A., Jackson, K., Noordien, Z., Pretorius, T.B., & Bouchard, J.P. (2022). Characterizing the nature of professional training and practice of psychologists in South Africa. *Annales Médico-psychologiques, revue psychiatrique*, 180(4), 360–365. <https://doi.org/10.1016/j.amp.2022.02.012>
- Peeters, E., Nelissen, J., De Cuyper, N., Forrier, A., Verbruggen, M., & De Witte, H. (2017). Employability capital: A conceptual framework tested through expert analysis. *Journal of Career Development*, 20, 1–15. <https://doi.org/10.1177/0894845317731865>
- Porath, C.L., & Bateman, T.S. (2006). Self-regulation: From goal orientation to job performance. *Journal of Applied Psychology*, 91(1), 185–192. <https://doi.org/10.1037/0021-9010.91.1.185>
- Poropat, A.E. (2011). The role of citizenship performance in academic achievement and graduate employability. *Education & Training*, 53(6), 499–514. <https://doi.org/10.1108/00400911111159467>
- Ravitch, M.S., & Carl, M.N. (2016). *Qualitative research. Bridging the conceptual, theoretical and methodological*. Sage.
- Rothmann, M., & Sisman, R. (2016). Internship impact on career consideration among business students. *Education + Training*, 58(9), 1003–1013. <https://doi.org/10.1108/ET-04-2015-0027>
- Sakka, F., El Maknoui, M.E.H., & Sadok, H. (2022). Human resource management in the era of artificial intelligence: Future HR work practices, anticipated skill set, financial and legal implications. *Academy of Strategic Management Journal*, 21(1), 1–14. Retrieved from <https://www.proquest.com/docview/2608930136/B17161A35EE14699PQ/4?accountid=14648>
- Sumarsi, S., & Rizal, A. (2022). The effect of competence and quality of work life on organizational citizenship behavior (OCB) with organizational commitment mediation. *International Journal of Social and Management Studies (IJOSMAS)*, 2(6), 69–88. Retrieved from <https://ssrn.com/abstract=4001395>
- Tang, M., Wang, D., & Guerrien, A. (2021). The contribution of basic psychological need satisfaction to psychological well-being via autonomous motivation among older adults: A cross-cultural study in China and France. *Frontiers in Psychology*, 12, 1–14. <https://doi.org/10.3389/fpsyg.2021.734461>
- Thompson, J.A., & Bunderson, J.S. (2019). Research on work as a calling... and how to make it matter. *Annual Review of Organizational Psychology and Organizational Behavior*, 6, 421–443. <https://doi.org/10.1146/annurev-orgpsych-012218-015140>
- Van der Heijde, C.M. (2014). Employability and self-regulation in contemporary careers. In M. Coetzee (Ed.), *Psychosocial career meta-capacities: Dynamics of contemporary career development* (pp. 7–18). Springer International.
- Van Der Heijde, C.M., & Van Der Heijden, J.M. (2006). A competence-based and multidimensional operationalization and measurement of employability. *Human Resource Management*, 45(3), 449–476. <https://doi.org/10.1002/hrm.20119>
- Veldsman, T.H. (2020). *Industrial-organisational psychologists engaging with the new world of work: The unfolding challenge of future-fitness for the 4th Industrial Revolution*. KR Publishing & Society for Industrial & Organisational Psychology of South Africa (SIOPSA).
- Vélez, G.S., & Giner, G.R. (2015). Effects of business internships on students, employers, and higher education institutions: A systematic review. *Journal of Employment Counseling*, 52(3), 121–130. <https://doi.org/10.1002/joc.12010>
- Züll, C. (2016). *Open-ended questions* (Version 2.0). GESIS - Leibniz-Institut für Sozialwissenschaften, Mannheim. https://doi.org/10.15465/gesis-sg_en_002